PASSFIELD

The world's most comprehensive and flexible Nursery Management Software

Passfield Horticultural Software

FEATURES LIST

Contents

Introduction

Passfield is a fully featured, highly advanced, software system which handles all aspects of the operation of a nursery. It is a full ERP system (Enterprise Resource Planning) which (unlike many claimed ERP systems) is currently being successfully used by many leading growers. It is a big product, sold at a fraction of the cost of some much less complete and less sophisticated systems.

This is a very large list of features. Be aware that there are many more features and facilities than you are ever likely to use. When the system is configured for your business, unused features become invisible. You only see what is useful to you. The "hidden" features can be switched on at any time and brought into operation if and when you need them.

The system is designed to work in both a very simple way – for example as a straightforward stock-keeping and sales processing system – or in a very detailed way, with full production control, detailed space usage, plant histories, labour records, machine time, seed purchases and so on. Each nursery needs to select the level of detail which brings the greatest cost benefit.

Clients, Suppliers and Contact Management

Passfield comes with a sophisticated contact management system, combining accounting/ledger information with the ability to record new contacts, and track all communications with clients, suppliers and others.
- Clients, suppliers and contacts can be members of the same Relationship.
- Multiple contacts per client
- Multiple contacts per supplier
- Multiple delivery addresses per client.
- Ability to designate a relationship master-contact, and enter others as sub-contacts.
- Ability to search all contacts (clients, suppliers, contacts, sub-contacts) as a single list.
- Up to twenty categorisation fields can be specified for contacts, allowing, for example, selection of clients by business-type, or area, or sales person.
- Clients and Suppliers within the same Relationship can share the same contacts.
- All clients, suppliers and contact records can be linked to pictures and graphics.
- Relationship addresses are held in common, so that the same address can be shared by a client and a supplier, and/or by a number of contacts. Address changes need only be entered once.
- Addresses automatically format without blank lines, according to the convention for the relevant country, for printing directly on documents, envelopes, labels etc.
- Events recorded under a relationship provide a full record of dealings with the client, supplier or contact.

- Events have a status of Future, Next, Current or Complete, and specified as "For action by" a specific person.
- Follow-up events can be set to be automatically generated, for action at a future date, whenever a sales quotation or sales reserve is printed.
- Overdue events can be set to appear on screen periodically as a red warning to the user.
- External documents (e.g. Word, Excel or PDF files) can be stored in the event, and re-opened from the event without reference to the original document file.
- Standard relationship events (e.g. Phone In, Phone Out, Letter In etc) are provided by the system
- Users can create unlimited different event types.
- Campaigns, composed of one or more events, can be created and applied to selections of clients/suppliers or contacts.
- Urgent events, or planned events, can be listed on screen in date or priority order, and action taken.
- Standard letters can be created, and used as part of a campaign, merging contact data into the text.
- Letters and documents can be e-mailed directly from the system.

Stock Keeping—Plant Stocks

Plant stock includes everything that grows. It can be very volatile, changing size, going out of season, being re-potted, pruned, grafted etc. The system copes with all these variations.

- Table of Plant Varieties.
- Plant variety names can be held as a single name, or as separate Genus, Species and Variety. (This assists with the production of grouped availability lists and plant catalogues)
- Table of Stock Lines (defining a product with size, container etc in at least enough detail to price).
- Table of Product Batches (specific stock batches planned, in stock, on consignment from suppliers, or in production).
- One hundred and fifty user-definable fields for product details (used for e.g. Plant Size, Pot Size, Colour, Spread, Season, Light requirement, Soil preference etc), all of which can be used for selective searches.
- Plant descriptors can be associated with the Plant Variety, or the Stock Line, or with the individual batch, and this controls whether they are editable on particular screens. For example, a descriptor related to the plant variety (e.g. "Leaf Type") cannot be changed in stock lines or batches using that variety. A descriptor at stock line level (e.g. Pot Size) cannot be changed at Batch level.
- Pictures can be saved for each variety, stock line and product batch.

- Ability to define and instantly view alternates (i.e. near equivalents) and add to sales orders.
- Ability to define and instantly view and sell appropriate accessories for a plant (I.e. non-plant items such as plant food, tools)
- Ability to define multiple sales and purchase packs, with a definable number of plants/stems/kilos etc per pack.
- Ability to define one stock line as being "sold as" another, so that sub varieties can be produced separately, but sold as a single product, such as "Our Selection", or "In Variety".
- Ability to make only a part of a batch "Ready for sale", so that only ready-stock is automatically allocated to sales.
- Ability to mark a batch as "Looking Good".
- Automatic update of stock lines to show which stock lines have Looking Good batches, and automatic switch off of Looking Good stock lines when batch stock is exhausted.
- Ability to view stock for any future date, with available and uncommitted stock levels predicted to be available on that date.
- Unlimited Nurseries/Farms/Sites.
- Unlimited Areas in each site
- Unlimited Beds within each area

(If EAN-8 barcodes are to be used to represent locations, there is a limit of 99 nurseries, and either 9999 areas per nursery, with no beds, or 99 areas per nursery with 99 beds in each)

- Ability to enter forecasts of total annual availability of a stock line.
- Ability to split annual forecasts into weeks or months.
- Ability to view on screen the annual, weekly or monthly targets, compared with existing and planned batches, and to automatically generate further batches and detailed production plans to fulfil the forecasts.
- Ability to view remaining stock levels and commitments both in terms of the actual batches, and in terms of seasonal availability.
- Full drill down and history on all stock movements.
- Logging of all abnormal changes to stock (e.g. level-adjustments, wastage, cost-price change), with user-name, time and date.
- Real-time, totally reliable tracking of stock levels, sales orders, sales reserves, quotations, so that current and future sales can be booked with full assurance of availability.
- Ability to split batches, e.g. if different growth rates are experienced or part of a batch is moved to a different area.
- Ability to switch batches from one stock-line to another, as the product grows or changes form. Comprehensive handling of any allocations of such batches to sales, with the facility to split the batch leaving enough under the initial stock line to cover allocated sales.
- Full stock history tracing through all splits and changes back to the original sowing.

- Ability to define batches as "Agency" - i.e. available for sale, but not owned by your nursery.
- Ability to generate periodic supplier statements and a purchase orders covering sales made from Agency batches.
- Ability to define commission rates, transport charges, packing charges etc where sales are made as an Agent on behalf of a supplier.
- Automatic generation of EAN-8 barcode for each batch and each stock line, for use in automated data collection.
- Direct printing of labels for each batch or each stock line.

Composite Stock Lines

Composite products are composed of products taken from other batches. There are four categories:

1. Assemblies. The saleable stock line is composed of stock from other stock lines. E.g. a hanging basket containing a number of different plants.
   a. Ability to create batches under the composite stock line, and assign stock b other batches to it
   b. Flexibility to vary the components used from those specified in the definition.
   c. Stock assignments from component batches to composite batches can be set in advance, and the required stock is thereby reserved.
   d. When the composite stock is actually created, the stock is removed from the component batches, and shown as part of the revenue for that batch.
2. Selections. Where the saleable stock line has a generic name (e.g. Fuchsia "Our Selection") but sales may be drawn from any one of a range of stock lines, representing different botanical varieties.
   a. Ability to create batches of the Selection stock line, and transfer stock from member batches into it; this records the precise make-up of the Selection batch, but does not record the precise components of each sale from that batch.
   b. Or alternatively, to sell from the generic stock line (with no actual stock) and allocate the sale direct to component batches, this records the precise make-up of each sale.
3. Bundles. Where a stock line is defined as a collection of plants for marketing purposes – (e.g. "Our Selection of Pansies", where one unit of the saleable stock line contains varying quantities of a range of different pansies.)
   a. Entering a sale of x unit of the bundle will automatically add lines to the sales order for all the components of the bundle, multiplying the defined component quantity by x.
   b. The Bundle stock line never has its own batches, and simply generates sales from other batches from component stock lines.

4. Gradable Stock Lines. Where a stock line needs to be graded into a range of alternate stock lines prior to sale, for example according to size, or quality.
    a. The definition shows all the stock lines to which the gradable stock line can be graded.
    b. The definition works in conjunction with the grade-out screens, which allow recording of grade-out quantities, creation of graded batches, and the calculation of piece-work rates.

General Stock and Consumables

General stock includes non-plant items either for use in the business, or for sale. Its processing requirements are very different from plant-stock, so a separate but integrated system is used.

- Non-plant stock is definable as General, Seed, Chemical or Holder, each type with different behaviour.
- General stock includes all consumables (packaging, compost etc) and all non-plant stock available for direct sale.
- Seed stock shows past and future usage of any genetic material from which plants are started, including cuttings, plugs, liners etc as well as seed. Seed stock records match the table of Plant Varieties. Usage can optionally record Seed Lot Numbers, and overall stock of each variety is split into individual stock levels for each seed lot.
- Chemical stock shows past and future chemical usage with all necessary legal detail.
- Holder stock relates to returnable or re-usable containers, such as growing trays, Danish trolleys, pallets. Temporary usage of holders for production, and for shipment to clients can be recorded, and holders held by clients can be recorded.
- All four types can be bought and sold using the standard sales and purchase systems.
- Pictures can be saved for each stock item.
- Usage of all kinds of resource (stock, labour and machine time) is predicted as part of the defined production plans, and predicted usage is automatically generated as batches are created or modified. So all stock records include both past movements, and anticipated future movements.
- Display of full stock history and predicted future requirements. This provides an instant screen display of predicted opening stock, stock receipts, stock usage, and predicted closing stock, by day, week, month, quarter or year. You can then see immediately when stock is likely to run low, and time purchases accordingly.
- Recommended future purchase orders can be generated from production plans, allowing analysis and negotiation of total stock requirement for the entire season.
- General Stock can be stored in a single location, or alternatively multiple stores/warehouses can be defined. Stock levels can be viewed per store, and overall.

- Each nursery can have its own stock location, or a single location can service several nurseries. (The Multiple-location option can be switched off altogether and a single storage location used for the entire business).
- One of the locations can be defined as the only one from which direct sales are permitted (giving a method of specifying which stock is available for sale, or defining which stock has been transferred to a retail facility).
- Stock-out situations against sales orders are advised to the purchasing system, and used to generate purchase orders. The new stock is automatically allocated to the sales orders on delivery of the purchase order.
- Any non-plant stock items can be defined as requiring tracking by individual stock lot. If so defined, then stock purchases require the entry of a supplier lot number on receipt of goods, and sales or usage of stock require selection from individual stock lots.

Seed Certificates

Where seed provenance is strictly controlled, as in the forestry industry, seed certificates may be required. The system provides a table of seed certificates, including all the information required by regulatory authorities.
Such seed certificates can be attached to Grading events, and also to batches of stock.

Seed certificates can be set to print automatically whenever a delivery note is printed for any stock which has seed certificates attached.

CRM Stock Availability / E availability List

Passfield can create and send stock availability based on the criteria set by the users. Availability lists can be created as editable spreadsheets or a PDF document, which can be printed, faxed or sent electronically. There is also the option to send eAvailability lists which can be set to electronically send personalised availability lists. On return, these can be loaded automatically into the system as sales orders

Sales Processing (Standard)

The standard sales processing system is ideal for ad-hoc sales (There are alternate systems for repetitive sales of the same produce to the same clients).

- Sales transactions can be started as Quotes, Pre Orders, Reserves or Orders.
- Sales transactions can be in any currency.
- A sales transaction can be created and allocated before knowing who the client is, using prices from the "default" pricing group. Prices will be recalculated according to the correct client group as soon as the client is known. If the order is cancelled, stock is immediately de-allocated.

- Sales may be entered whether or not stock is available. Shortfalls of available stock against sales orders are immediately visible (and coloured red) on the sales order screen. Fully allocated sales orders are shown green.
- Stock allocation is real-time—stock ceases to be available as soon as each line of the sales order is entered.
- Sales may be entered by browsing through a sophisticated "Stock Picker", which shows all types of stock, their quantity and date availability, and the quantity already on the current order.
- Sales may also be entered by typing directly into a quick-entry system, which provides the maximum speed and efficiency where keyboard skills are high and browsing of stock availability is not required.
- Allocations of sales to specific batches are made automatically according to system rules. (See also "Allocation of Stock to Sales" below.)
- Users may specify the order in which batches are automatically allocated to sales.
- Use of more than one batch of the same product to fulfil a sales order can either be linked to a single line on the sales order (thereby hiding the multiple-sourcing from the client), or may generate separate lines, depending on system settings.
- Allocations are in base units, although the sale and the stock itself may be specified in different pack-types.
- Plant sales, general stock sales, and free-text sales lines (e.g. for delivery charges etc) may all exist on the same sales order.
- A "library" of free-text lines can be created, together with standard information (such as accounts analysis codes), and pulled into the sales order.
- The entire order may be repriced (if, for example, you change the customer group from retail to wholesale).
- Discounts can be applied to the entire order, or to individual lines.
- Settlement discounts for prompt payment may be applied, and Tax calculated on the net amount.
- Prices may be specified, displayed and printed either net of tax or inclusive of tax.
- Unfulfilled sales may be:
  - Passed to sales history as an unfulfilled order (thereby allowing analysis of lost sales)
  - Used to create a back-to-back order, which advises Purchasing Dept to order the stock and apply it to this specific sale.
  - Split into a To Follow order, or
  - Cancelled altogether.
- Accounting links keep Current-Credit and Credit-Limit data up to date.
- Credit Limits and "Account On Stop" can be set to either warn or refuse delivery of goods (or switched off altogether).
- Quotes and Reserves are given an expiry date, and their stock allocations are automatically removed when that date is reached.
- Transactions or parts of transactions can be created by copying from previous transactions (efficient for repeat orders, or reversing an invoice via a credit note).

- Transactions can be created by copying existing transaction to other client accounts of delivery address of the same account.
- Sales orders may be split, allowing multiple deliveries under the same order.
- Cash receipts can be entered against transactions, or as On-account payments. Payment details can be included in sales documents.
- Cash receipts for a period can be listed with a total for each sales person.
- Design of sales documents is fully modifiable by the user, and can include pictures, company logos and messages.
- Different document designs can be created by the user and linked to individual clients or client groups (so that appropriate documents are automatically used for each type of client).
- Specific sales rules can be set up for individual clients (e.g. with specific pricing, a specific pack type, and a specific product description).
- Retail labels can be printed direct from the sales transaction according to pricing rules and with the label designs and plant-naming conventions for that specific customer.
- Quick Load Reckoning is available to quickly and easily calculate trolley and shelf use
- Trolleys are trackable, and Passfield facilitates trolley delivery and collection
- Multiple deliveries to the same client can be amalgamated into a single invoice.
- System settings determine whether delivered transactions can be edited.
- Delivery notes can be reversed (subject to permissions being set for the current user).
- System settings and permissions determine whether invoiced transactions can be edited (as long as the transfer to accounts has not taken place).
- Invoices (not transferred to accounts) can be reversed (subject to permissions).
- Sales transactions can hold an invoice address, a delivery address, and a contact/agent address.
- Unlimited notes can be added, either to the transaction as a whole, or to each line. Notes can be private, or printed.
- Sales transactions link to the transport system, and can be added to planned vehicle-journeys.
- Sales documents can be bulk-e-mailed direct from the system. Email addresses and the client's preferred communication method can be set up so that documents can be sent in bulk without manual entry of routing information.
- Pick lists can be produced for individual orders as well as bulk pick lists for amalgamated orders. As with all Passfield documentation, the design and contents of the pick lists are fully customisable to suit your needs

Sales Gross Profit Display

There is an option to set Sales screens to show the purchase costs, gross profit and profit margin, both for each line of the order, and for the order as a whole.

If stock is purchased for resale, then this cost data will automatically be available. If batches are grown in-house, then the gross margin system is dependent on entry of notional cost prices on each stock line or batch.

The sales order entry screen allows instant quoting from known cost prices in response to enquiries, and instant display of expected profitability of the order. If this option is switched off, or if the logged-in user is not authorised to view this information, all cost and margin data is hidden.

Cost prices may be obtained from any one of
- Batches allocated to the sale
- Quotes from suppliers in a back-to-back purchasing process
- The standard price specified by the first supplier for that product in the Preferred Suppliers list.
- The standard cost specified by the user on the Stock Line record.
- For non-plant stock, the budgeted purchase cost specified in the stock record.

User can set the order of priority in which these possible sources are searched.

Where no cost is available, the screen displays clearly that part of the sales order has not been costed

Point of Sale Barcode Scanning

Sales order screens can be populated with stock by scanning barcoded labels.

The recommended scanner model is the Honeywell Voyager, which connects wirelessly via Bluetooth to the PC, and has a memory allowing the user to wander out of range of the PC, and queue up scanned items which are downloaded to the PC when he comes back in range. Almost any other wedge-type barcode scanner can equally be used.

The normal scanning process begins with the creation of a new sales order. Ideally the client would also be selected at this stage, as this will ensure that the appropriate pricing and other client-specific information is used.

Both retail barcodes (EAN13) and internal barcodes (EAN8) barcodes can be scanned, and the system will automatically detect what kind of barcode it is and respond appropriately. The system automatically generates EAN 8 barcodes without the need for user input, and such barcodes can be printed on any label or any document.

The POS scanning system understands the following barcode types:
- EAN 13 barcodes held on plant Stock Lines.
- EAN 13 barcodes held on non-plant stock records
- EAN 8 barcodes designating a specific batch of plants.
- EAN 8 barcodes designating a plant Stock Line.
- EAN 8 barcodes designating a non-plant stock record.

- EAN 8 barcodes designating a particular Lot Number of non-plant stock.
- EAN 8 barcodes designating a Free Text line (e.g. for Warranty, Transport etc) (these would be scanned from a sheet of barcodes held alongside the Till PC)

On scanning, the cursor is located to the quantity field on the entered line so that a quantity can be typed in. Alternatively, if the same barcode is scanned multiple times, the quantity on the line is incremented by 1 each time.

Sales Processing (Master Orders)

Master Orders (MOs) are placed by regular clients against the expected availability for a season, and are then called off bit by bit as the season progresses.

- Where a company primarily trades using MOs, almost the entire trading process can be controlled from a single screen.
- The system can be set to update the MO system regardless of whether a sale was generated using the MO system. In this way the MO system can be set to be a complete trading record of all business done with each client.
- From the MO screen, the following processes are available:
  - Viewing of the entire stock list or shrinking the stock list to those lines included on the current MO.
  - Entering MO quantities against individual stock lines.
  - Viewing sales prices for each stock line for the current client.
  - Setting special prices for the MO, separate from standard sales prices.
  - Viewing and setting retail prices for each client.
  - Calling off stock for immediate delivery, with instant update to stock levels, and client's remaining reserve.
  - Call-offs require no more than the entry of a quantity in the appropriate line of the grid.
  - Quantities can be entered either as unit quantities or pack quantities.
  - Adding un-reserved stock to the current call-off.
  - Printing order acknowledgements, picking lists and/or delivery notes.
  - Where a single MO is shared between a client's delivery addresses or between a number of different accounts, the relevant account or delivery address is selected as part of the call-off process.
- Where Quick Load Reckoning is used, the number of shelves, trolleys or pallets are instantly shown as stock is called off.
- MOs are placed against a stock line definition, and automatically allocated to batches as deliveries are called off.
- MOs can be given valid-from and valid-to dates, and these dates may straddle the end of the system trading year.
- Clients can have more than one MO operating simultaneously, but where the dates of MOs overlap, the same product cannot be included in both.
- Master Orders may be placed for any combination of account and delivery address, including groups of accounts sharing a single master order.

- Master order screens show full statistical data, including total reserve for the current client, total reserves for all clients, total availability of stock for the season, un-committed stock for the season, stock currently available. Drill down facilities are provided for all these figures.

Sales Processing (Contract Growing)

Some growers, and especially propagators, grow a significant part of their production to order. Product batches are allocated to specific clients from the start, and each line of each order has its own batch.

Typically, clients order quantities of the same stock line for scheduled deliveries over a period, so a number of orders may be identical apart from the quantity and date. This allows the system to provide very rapid data entry of such series of orders.

- Sales pricing is searched and implemented as the order is entered. Where prices vary according to the season, the expected ready-date of the batch is used to determine the correct price.
- Prices may be made up of a basic product price, an option price for seed or other genetic material, and up to two surcharges, which may cover special treatment, transport etc.
- System settings determine whether the various elements of the price are amalgamated for invoicing purposes, or separated.
- Different General Ledger codes may be set for these different elements of the price.
- Variable batch information (i.e. where stock descriptors are editable at batch level) can be entered on the same screen as the order.
- Client stock profiles can be set to provide default settings for new orders, including
  - Whether the client prefers to specify the sowing date, or the delivery date of the batch
  - Whether the client supplies his own seed.
  - Whether the client specifies a particular production method – i.e. whether the batch will use a special batch-plan.
  - Whether the client includes surcharges – e.g. for transport or treatments.
- Once orders are accepted, product batches are automatically generated from the order, and are ready for start of production.
- Growing times at different times of the year are stored, and used to predict sowing date from client-supplier delivery-date, or vice versa.
- All necessary allocation of resources (space, trays, stock etc) is carried out on order entry.
- Full plant histories can be printed and supplied with sales documents.
- Multiple deliveries can be consolidated into a single invoice.
- Delivery notes are generated directly from the client's product batches as they become ready.
- Delivery notes can include designated treatments and their dates for each of the included products.
- Invoicing uses the price from the original production order.

- Invoicing can be set to use the quantity of the original order, even though the delivery includes a production surplus.

Allocation of Stock to Sales

As sales orders are entered, allocations to available stock batches are automatically made, according to rules set by the system administrator. All sales can therefore be traced back to the individual batch from which the product was taken.

Allocation is sensitive to the required delivery date of the sale. Where orders are entered for delivery in the future, the system can be set to allocate only to the batch which is planned to be ready immediately prior to that date.

The system allocates to the batch with the earliest ready-date first. This sequence can be overridden, and the batch sequence for allocation can be set manually.

If stock is not available at the time when orders are entered, the allocation must be made when the stock eventually becomes available, and there are various automated methods for doing this.

- Sales orders which are unallocated or only partially allocated to stock batches can be immediately identified on the order-list on screen.
- Automatic allocation can be re-run for these orders. This allocates any stock which has come available since the order was first created.
- In addition, manual allocation can be carried out for any line of an order. This includes the ability to substitute one product for another if a near-equivalent is available.
- As stock batches are purchased, or otherwise created, all outstanding sales orders for that product can be displayed, and the newly available stock allocated to them.

Where the back-to-back system is used, and stock is purchased specifically to fulfil a sales order, the allocation is automatically created as soon as the purchase order is created.   This avoids the risk that incoming stock is inadvertently sold to another client.

Transport and Shipping

The system provides an easy-to-use facility for allocating deliveries to vehicles.

- Bulk create journeys from known vehicles and drivers.
- Optional two phase process to allocate deliveries to vehicle—Request (usually by sales staff) followed by Acceptance (by transport manager).
- View delivery status from within the sales transaction.
- View sales transaction from the delivery system.
- Add returnable containers, trolleys etc to sales transactions.
- Create delivery instruction sheets for each journey, including itinerary.
- Bulk print delivery notes and other sales documents for all transactions in a journey.

- "Delivery Area" field on the client allows grouping of clients into convenient geographical locations.
- Delivery Areas can be grouped into a series of standard delivery routes.
- Vehicle journeys can cover one or more routes.
- Sales deliveries can be automatically sorted into routes, and allocated to an appropriate journey.

Accounting for Returnable Containers

Trolleys, shelves, pallets and boxes (known as Holders) represent a considerable cost, and Passfield provides a system for tracking them in detail.

- Where holders are part of a contract growing process, they can be automatically logged out to the client on delivery of the batch.
- Holders can be added to deliveries, either on each line, or for the delivery as a whole.
- Holder information can be printed on sales documents, including delivery notes and invoices.
- Returns of holders from clients can be logged in as they arrive.
- A full statement of account can be printed for each client, showing holders delivered, holders returned, and outstanding balances.

Sales Pricing

Passfield provides very flexible pricing facilities. Although most nurseries will have fairly simple pricing schemas, pricing can become very complex, especially if the nursery prices by the pack, or changes prices according to the season, or the sale quantity. The system makes this as easy to set up and maintain as possible.

- Define as many client pricing groups as required.
- Client pricing groups may be defined as using Tax-inclusive prices—ideal for over-the-counter sales.
- One client group can be specified as the default—and will be used if the client is unknown or the client's group is undefined.
- One client group can be specified as the standard—and other groups can be calculated from it using discount percentages or increment percentages.
- Each client group can be set to show either the standard price with separate discounts, or only the net price, on sales documents.
- Sales documents can be designed to show discounts separately, but to remove all mention of discounts if the discount rates are zero.
- Prices can be set either for Stock Lines, or for individual Product Batches. (If a Batch price exists, it is used instead of the Stock Line price. This is so that individual

batches can be reduced to clear, or increased because of market conditions, without making a change to the normal price for that stock line)

- Prices can be set for groups of products, so that a number of products share the same price. Changing the price on the "master" product also changes the price for all members of the group. (Where client retail prices are needed for client labelling, the same product groups apply). This greatly reduces the price-maintenance task.

- Screen displays show only the price relevant to the current client (or the default client group if client is not yet known), making it possible to browse stock in the presence of the client without embarrassment. Other group prices can be displayed with a single key press.

- **Simple pricing**
  - One price per client group.
  - Prices can apply to the stock line definition, or can be overridden for individual batches under that stock line.
  - Editable in spread-sheet format, with one column per client group.
  - Utility to automatically calculate prices from the Standard Price and the client-group discount/increment rate.
  - When changing prices (e.g. for a new season) user can opt to "expire" the old price, rather than delete it. In this way new prices can be made to apply to a future date, and old prices continue in force until that date.
  - Simple pricing is not compatible with multiple Pack Types.

- **Complex pricing**
  - Allow quantity breaks.
  - Specify different prices depending on the season.
  - Specify prices per pack type.
  - Specify expiry dates for prices, so that new season's prices can be entered while old prices are still in force.

- **Specific Client Prices**

  Client profiles can be created to specify specific prices for specific stock items for that client.

Retail Prices

Retail prices are frequently required for printing on clients' labels, or inclusion in display material. Passfield provides a highly automated and very flexible way of generating accurate retail prices for each client. These prices can be used by the labelling system, along with client-specific barcodes, with no further user entry.

- Recommended retail prices can be set for the system, and some clients will be happy to use these.

- Retail prices specified by the client can be entered on that client's profile.
- Mark-up formulas, with a wide range of rounding points, can be defined both for the system, and for each client, and retail prices automatically calculated using this formula.
- The base price to be used for application of the formula can be set to come from the actual price paid on the current order, the normal price for that particular client, or the standard catalogue price.
- Different formulae can be set for different ranges of prices – e.g. one set of rules for prices up to £ 10.00, and another set of rules over £ 10.00.
- Retail pricing rules can be set for each client – whether a mark-up formula should be used, whether prices must always be specific to the stock line or can be taken from the product group, whether the system default price can be used.

Purchasing

The purchasing system provides great flexibility, and close integration with stock, production and sales. It can be used for simple purchase of plants or other stock, and for any other type of purchase.

- Used for either plant stock or non-plant stock.
- Library of Free Text lines (similar to sales transactions).
- Allows purchase in any pack-size.
- Uses stock-picker to browse stock and enter order-quantities and prices.
- Planned batches can be browsed and the necessary seed/plugs/cuttings purchased. The purchase order is linked to the batch, and the stock is automatically assigned to the batch when it is received.
- Recent purchases of a stock item can be popped up.
- Automatically creates product batches for plant-stock purchases.
- Permits partial deliveries, and splits product-batches where necessary.
- Carries cost prices through to both product batches and general stock
- Document designs are under user control, and can include logos and messages.
- Alternate document designs can be linked to specific suppliers.
- Purchase orders may be placed in any currency. Stock costs are recorded as the home-currency equivalent.

Purchasing (Automated)

This highly powerful system allows the creation of a "wanted list" of stock which takes into account projected batch usage, unallocated sales orders, and the purchaser's decision on required stock-levels. These are then used to solicit quotations from suppliers and to create purchase orders.

- Stock picker shows anticipated stock-requirements and shortfalls for planned production over the next n days.

- Back-to-back orders (from sales transactions) automatically appear in the list of Proposed Purchases.
- Multiple requirements for the same stock-line get merged into a single requirement total.
- There is a table of preferred suppliers for each stock line.
- Requests for Quotations can be generated for a single supplier, or all appropriate suppliers in the preferred suppliers table.
- Quotation responses can be entered and compared, and eventually accepted.
- Accepted quotations on specific lines can be converted to purchase orders.
- Conversion to purchase orders creates the appropriate product batches in anticipation of delivery.
- Back to back orders from sales are automatically allocated as the goods are received.

Production Control

The Production Control features incorporated into the Passfield system provide a fully-fledged manufacturing control system. The software provides the nursery industry with information and planning systems which are normally available only to large manufacturers at very high prices.

- **Batch Production Plans**
  - All production events, stock and area usage, labour and machine requirements are automatically generated behind the scenes on entry of a new product batch.
  - Unlimited numbers of production methods, known to the system as "Batch Plans", can be created, together with their growth periods and processes for different times of the year.
  - The amount of time required for each production phase can be set, so each event in the process can automatically be given an expected date.
  - Timing tolerance can be set as a permitted percentage of shrink or stretch of the expected duration, so that a minor variation between the actual and planned dates of one event need not affect the planned dates of subsequent events.
  - User can define their own production events, with cost estimates and resource usage.
  - Users can define anticipated wastage, germination rates etc, so that the system will automatically increase the initial planting to meet the sales target.
  - Germination rates can be varied for different plant varieties, even though those plant varieties all use the same batch plan.
  - Spacing information can change during the production process, to cover transfer of plants from trays to pots, or from one size pot to another.

- Consolidation of multiple plants into a single unit of product can be incorporated into the batch-plan – as when several seedlings are planted into a single pot.
- Growing areas can be allocated to environments, and allow changes during the season.
- Space available in each area can be plotted for every day of the season, based on production plans.
- Area usage can be displayed in graphical form.
- All the events involved in the production process for each batch can be viewed, reported on and processed, thereby providing a complete work plan for the nursery, and a complete history of all activity.
- Anticipated and past usage of stock, labour and machine-time can be viewed and reported on.

- **Production Events and Work Schedules**

  As soon as batches are created, all the activity associated with those batches is already in existence on the system as planned events.
  - Print work-schedules for any day, period, area, or person.
  - Sort on screen or show on a report by event type, by date, by completion status.
  - View and/or adjust the resources (Seed, General Stock, Labour, Machine Time) required by each event.
  - Change quantities on the event, to reflect wastage or other losses, and thereby adjust the predicted final availability.
  - Change the date on an event, and thereby adjust the prediction ready-date of the batch.
  - Print a full batch history, including every event, its location, the amount of stock used, quality inspection results etc.

- **Sprays and Treatments**

  Sprays and treatments may be part of a batch production plan, but they can also be applied on an ad-hoc basis to multiple batches in a single operation.
  - Treatment events include all necessary regulatory information.
  - You can specify the nursery locations to be sprayed.
  - You can generate a list of all batches included in those areas on the date of the treatment, include extra ones, and exclude ones that were not included in the treatment.
  - Print treatment documents, both as instruction sheets for staff, or as official records.

Barcoding

Barcoding is available for many elements of the system. All stock lines, batches, non-plant stock items, nurseries, areas, bays, shipping containers automatically generate EAN-8 type barcodes, which can be used on labels, documents or reports.

EAN-13 barcodes can be automatically generated for sales stock lines. Standard prefixes and barcode structure can be specified, and different barcodes can be automatically generated for each product and each different pack-type of that product.

The same sales barcode can be shared by a number of different sales items. Specific barcodes for specific clients and products can also be entered.

Handheld computers

Handheld computers (PDA) with built-in barcode scanners are used for automated data collection. These are used for many purposes, including stock-taking, recording of stock location, various kinds of quality inspection. Passfield currently offers a Stock Control application, which uses operating system Windows Mobile. Passfield also offer a stock control solution for Windows 10 tablets.

Document Design

- Users are able to modify the layout of all documents.
- Documents can be linked to specific suppliers, clients and client groups.
- Purchase documents can be linked to specific currencies.
- All addresses automatically format to skip blank lines.
- Sales Documents contain regions where discount information can be printed. If there is no discount on the sales document then no information to suggest a discount is printed.
- Documents can be printed with bar-codes, pictures, graphics and extended text.
- The user is able to pre-set which printer the document will be printed to. This can be over ridden at print time if necessary.
- The user is able to pre-set how many copies of the document are printed. This can be over-ridden at print time if necessary.
- Documents can be printed or Emailed using the messaging system which will send it to the recipients Email address without the user having to enter or select the address each time. This requires compatible fax and e-mail software. (Outlook or Outlook Express, other MAPI compliant Email clients are frequently used).
- Standard messaging methods can be set up for each client, and varied for different documents. (e.g. Quotations may go by fax, and invoices by mail)
- Documents can be saved to file in either, HTML, PDF, Excel or Text Format.
- Documents can be printed in a specific order

Labelling

- Labels can be produced for in-house use, or on behalf of clients for dispatch with produce.
- All labels can include both in-house or client barcodes.
- Labels can be created in the following categories:
  - Stock Line Labels – with product information.
  - Plant Stock Labels – with product information and information on a specific batch.
  - Non-plant stock labels – for accessories, consumables etc.
  - Stock Lot Labels – for non-plant stock where the stock-lot number is recorded. (e.g. a stock lot label can be produced from the purchase order for seed-stock receipts)
  - Area/Bay labels – can be attached to greenhouse uprights, to assist with collection of plant-location data using handheld barcode readers.
  - Client labels – for dispatch with sales orders. Can contain client prices, client barcodes, sell-by dates etc. This is a highly automated process, allowing a full run of retail labels produced directly from a client order with a single click.
  - Tag labels. Printed from a sales transaction, and used for tagging plants which have been selected for that order. (used by sellers of higher-value ornamental stock which is picked for sale but may stay on the nursery for a time).
  - Handling Unit / Trolley Labels. To be attached to trolleys and handling units for identifying entire trollies and to assist with identification and shipping.
  - Non-data aware labels – with specified content of any kind, but which print independently of any underlying data.

- Users can create as many label designs within each category as they wish.
- When labels are printed, they are first placed in a label printer queue. Users can decide to send this queue to the printers immediately, or allow label-printing tasks to accumulate for later printing.
- Labels obtain their data from the database. Each label design can also include fields entered by the user at run-time and can be set to retain these entries from one label to the next. (e.g. a week number in the client's preferred form need be entered only once at the beginning of a new week, and will then automatically appear in the print-dialog until the user chooses to change it),
- Processing of the label printer queue can be done by a separate workstation, e.g. in a print room.
- Multiple entries in the queue can be sorted by stationery type, and by printer, to allow longer, uninterrupted print runs.
- Within each group (i.e. sales order, or stationery type) the user can decide the sorting order – e.g. by plant code, or batch location)

- Several printers can run simultaneously from a single workstation.

Messaging – Email and EDI of Data and Documents

Passfield is able to send and receive messages via Email in various formats, and process those messages automatically. This needs to be specially configured by our support staff for specific message types and document types.

Passfield systems currently in live operation are:
- Sending Picking Lists (generated from sales orders and split into different suppliers depending on the product) via Email using XML format. The message can include retail prices (for labelling purposes) and special notes from the sales office.
- Receiving orders by Email in XML format. Outlook folders are searched for new messages, and if found, orders are automatically created within the Passfield system, ready for picking and dispatch.
- Receiving orders in CSV format (specifications per Wyevale PLC – a UK garden-centre chain). Outlook folders are searched, and if new message found, the order is automatically created within the Passfield system.
- Sending and receiving EDI orders and invoices – used extensively for trade with Supermarkets. The system communicates directly with mailboxes provided by Value Added Networks (e.g. GXS and IBM), and no other EDI communication software is required.

The method by which each document type should be sent can be set up as permanent information on the system. This means that when such a document type is produced, the system automatically sends it in the appropriate way – whether by Email as a PDF file, by EDI as a Tradacoms file, by fax, or as a printed document. Documents can be processed in bulk, even if different transmission methods are required for each.

New document types and formats will be progressively added in accordance with client requests.

Report Generator

The system comes with a highly sophisticated report-generator.
- Many standard reports are supplied as part of the package, and these are adequate for most normal requirements.
- Passfield can create and modify reports for customers' specific needs.
- Users may modify, or copy and modify, these reports for their own special needs.
- Users may create their own reports, mining any data in the entire system.
- All reports, including those created by users, can be added to the window menus, so they are available in the screens where use is most likely.
- The system uses standard SQL, and a tool is provided to help you build new queries.

- Names of data tables and fields are user-friendly, so it is not difficult to identify the data fields required by your report.

Graphs and Charts

The system allows you to design and run unlimited graphs and charts on any data.
- Users may modify, or copy and modify these graphs for their own special needs.
- Users may create their own graphs, mining any data in the entire system.
- All graphs, including those created by users, can be added to the window menus, so they are available in the screens where use is most likely.

Export of Data to File

- The Export System makes it possible to export data in a way that can make it very easy to further process or use data.
- Any of the data contained in the database can be manipulated and then exported using the Structured Query Language (SQL).
- The data is exported in CSV format so it can be imported to virtually any word processing, Desktop Publishing or spreadsheet software.
- Export designs are named and saved, and can therefore be re-used. All export designs can be added to window menus in the same way as reports and graphs.

Import of Data from File

- Like Exports, import designs can be created, named and saved, and re-used. Different suppliers, for example, may supply their stock lists in different formats. A different import design can be created for each one and then repeatedly used.
- Import of data requires detailed technical knowledge of the system, as most tables need to cross-reference with other tables. It is therefore highly advisable to consult Passfield before attempting this.

Data Analysis

In addition to the report generator the system includes an analysis tool, providing the ability to produce reports in matrix format. Here are some examples of possible analysis reports:
- Columns of stock groups, rows of client groups, giving total sales over a period.
- Columns of month numbers, rows of client accounts, giving sales per month over the year.
- Columns of week numbers, rows of staff names, giving total labour units recorded per week.

The possibilities are endless. Extra training or consultancy is recommended for this facility.

Security

Security in Passfield is very flexible and powerful, and helps to protect your system from accident-prone or malicious users.

- Users belong to user-groups
- User-groups are given specific global permissions (e.g. to design reports, modify documents, change screen designs, edit, add or view data).
- Supervisors can hide any menu items or functions on each screen from certain user-groups. In this way, the transport office, for example, would only see a single menu option, letting them in to the transport and dispatch system. The rest of the system would be invisible.
- Many screens have specific permissions which can be set for each user group (e.g. to adjust stock levels). Editing, adding, viewing and deleting permissions can be set for any screen for any group.
- Passwords are encrypted.

The On-Screen Environment

- When you first run the system, screens initialise with the design recommended by Passfield.
- Users can hide or show any fields in listing screens, and adjust column order and width.
- Forms can be resized and repositioned.
- All user-modifiable screen designs are saved for each individual user, and restored when he next logs in.
- Authorised users can create screen designs and save them as the company default design.
- Users can revert at any time either to the company default design, or to the Passfield recommended design.
- Date fields also display the week number. Dates can be entered as week numbers
- Most data entry fields include "assisted entry", whereby the field is completed by the system as you begin to type.
- CR (I.e. the Enter Key) can be used to move from field to field. (as well as the standard Windows Tab key), making rapid data entry easier.
- In most cases a list of data records can be sorted by clicking on the column header, of **ANY** field.
- Listings, regardless of the field on which they are sorted, can be searched by typing the required name or number.
- Alternatively, or in addition to the column-based search facility, users can create and use filters for search and selection purposes.

- Users decide which fields usefully appear in the filter, and these are saved for that user and implemented on next log in.
- Filtered fields can be compared with a variety of comparators, including =,>=,<=, STARTING WITH, and CONTAINING, so for example all stock names containing 'japonica' or 'Lettuce' can be selected in a fraction of a second.

Multiple Companies

Cooperative ventures are common in the industry, in which two or more companies share growing areas, labour and equipment resources etc, but own their own stock, ship and sell to their own clients, and maintain separate financial accounts. This is not included in the standard Passfield system or the Production Control systems. Software prices are available on enquiry.
- More than one operating company can share the same Passfield system.
- Client lists, supplier lists and plant stock are marked as belonging to specific companies.
- Purchase and sales transactions belong to specific companies.
- Non-plant stock, labour, machinery, glasshouses etc are treated as a shared resource.
- Periodic reports create a rational basis for sharing the costs of resources between the companies.
- The accounts-link program distinguishes between transactions for each company, and posts to the appropriate set of accounts.

Passfield Attendant

Passfield attendant allows the automatic running of processes at specified times throughout the week. Backups, system optimisation, uploading data to your web shop and downloading EDI and web shop orders can all be done automatically at a time that you specify.

Business to Business Web Shop

Passfield offers a free Business to Business (B2B) web shop. This allows your customers to raise their own orders and keep track of past orders from your own secure web shop. Each customer has their own login and password. The shop is updated regularly with the details you specify. Web shop orders can be downloaded to Passfield at regular intervals throughout the day or night and are converted directly into sales orders.

Financial Accounting System

Passfield does not provide financial accounting, and instead links to a range of different accounting systems on the market. The linking system does more than just post sales and purchase invoices. It does a full data comparison between sales ledger (A/R) accounts and purchase ledger (A/P) accounts, and updates the systems in both

directions. A full list of Nominal Ledger (G/L) codes is duplicated in Passfield, for linking with products.

There is complete flexibility in the generation of G/L codes for both sales and purchases. The code includes an account number, and optionally a cost centre and a department. Users can designate how each element of the G/L code is generated – choosing between codes based on what the product is, or on who the customer is, or in which nursery the stock was grown, or needs to be manually entered on each transaction.

The financial accounts linking program is designed to be extremely easy to adapt for different accounting systems. A developer with the required expertise and authorisations in the accounting system requires no knowledge of the Passfield system in order to create a new Passfield/accounts linking program

Database Monitoring

Passfield can log and trace administration tasks and monitor the database, creating logs and auditing records.

Passfield Technology

Passfield uses modern Client/Server technology, and the system is therefore composed of two separate parts—the Client, which is a series of Windows programs running on workstations, and the Server, which is a specialised database management program normally running on a separate machine. The client programs communicate with the server program, and the server program ensures that all the proposed data updates make sense before allowing them to be written to the data files. This creates a very stable and reliable database system.

General Data Protection Regulation (GDPR)
Passfield is fully GDPR compliant and users are able to remove clients or suppliers details using our specially designed tools.

Firebird—Advanced Relational Database Technology

The database technology used by Passfield is Firebird, which is an Open Source relational database used extensively around the world. It will run on a stand-alone Windows workstation, or on a Microsoft Windows server, or on a Unix or a Linux server.

Firebird offers a very high level of data security and reliability. Backups can be taken without the need to stop working, and can be scheduled to run automatically at any time of the day.

As an open source product, like Linux, Firebird is supplied free of charge. One of its benefits is that it is extremely simple to administer. Maintenance costs are close to zero.

Summary

The Passfield system does much more than simply keep stock and process sales orders, although it is economical enough to be used (and is used) just for this. It gives you the power to enhance productivity, not only in stock-keeping and the production process, but also in purchasing and selling. It provides you with just about any information you may wish to know.

It provides you with many possibilities for improving the way you work. It is a powerful toolkit which gives a significant competitive advantage to any nursery which uses it well.

In short, it is the future.